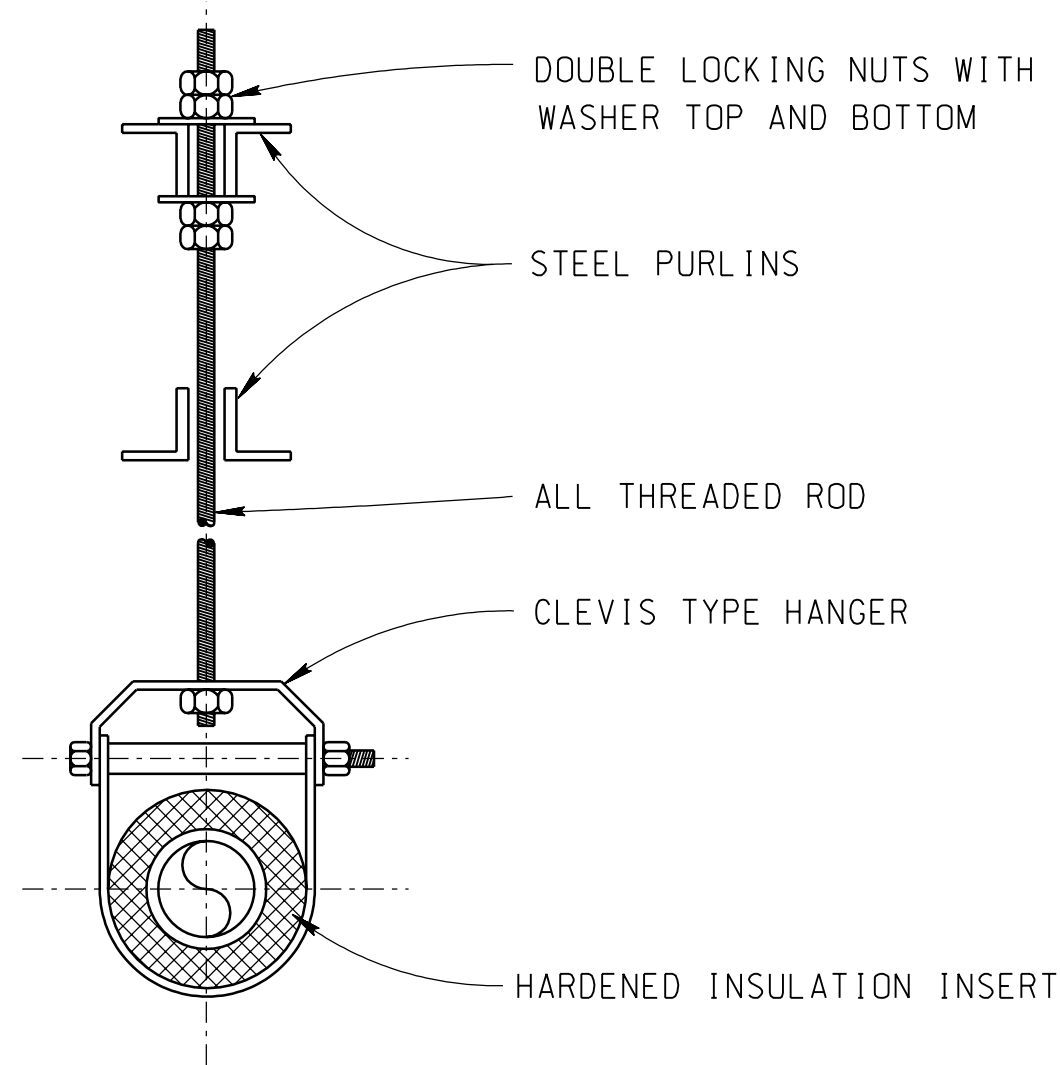
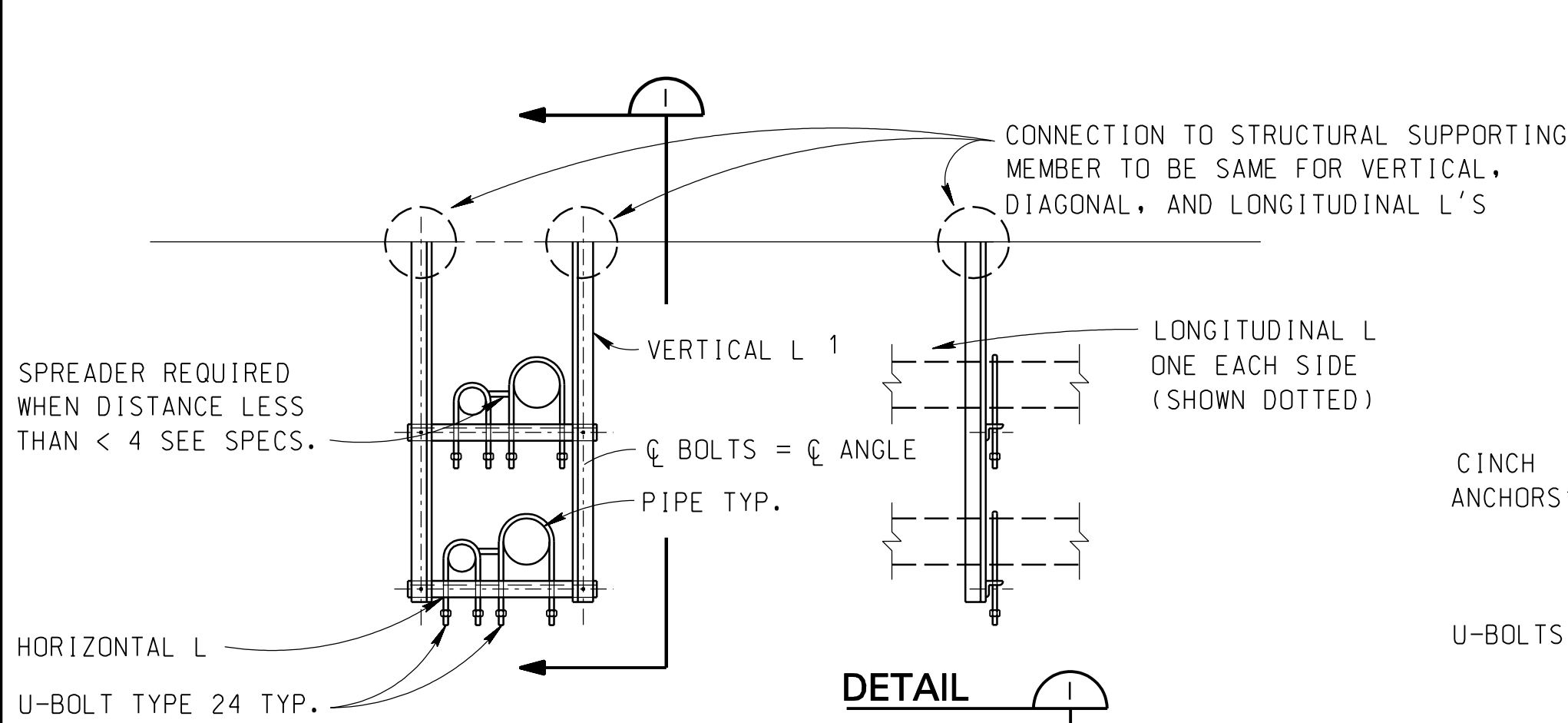


D



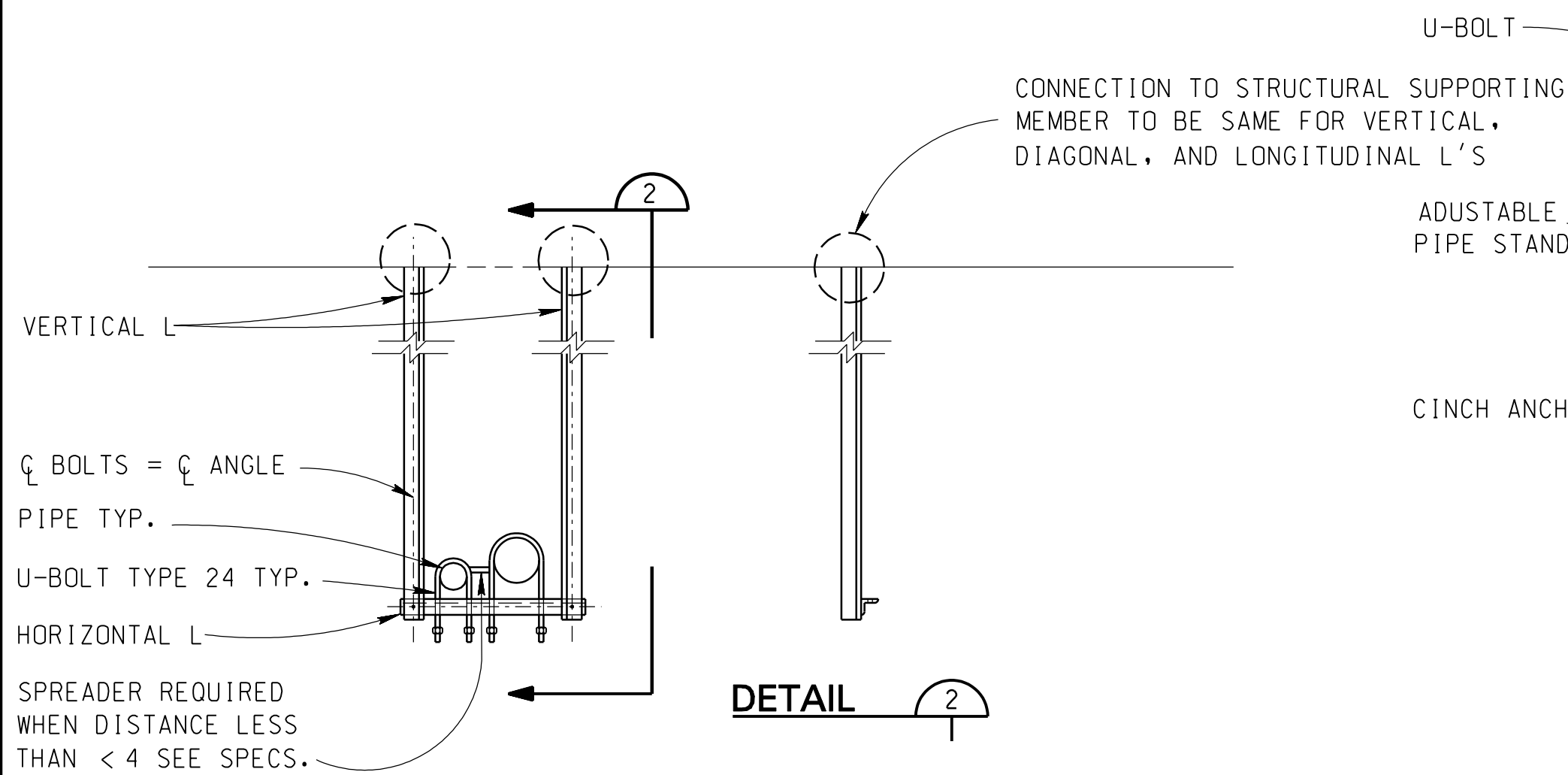
TYPICAL PIPE SUPPORT  
NO SCALE

C



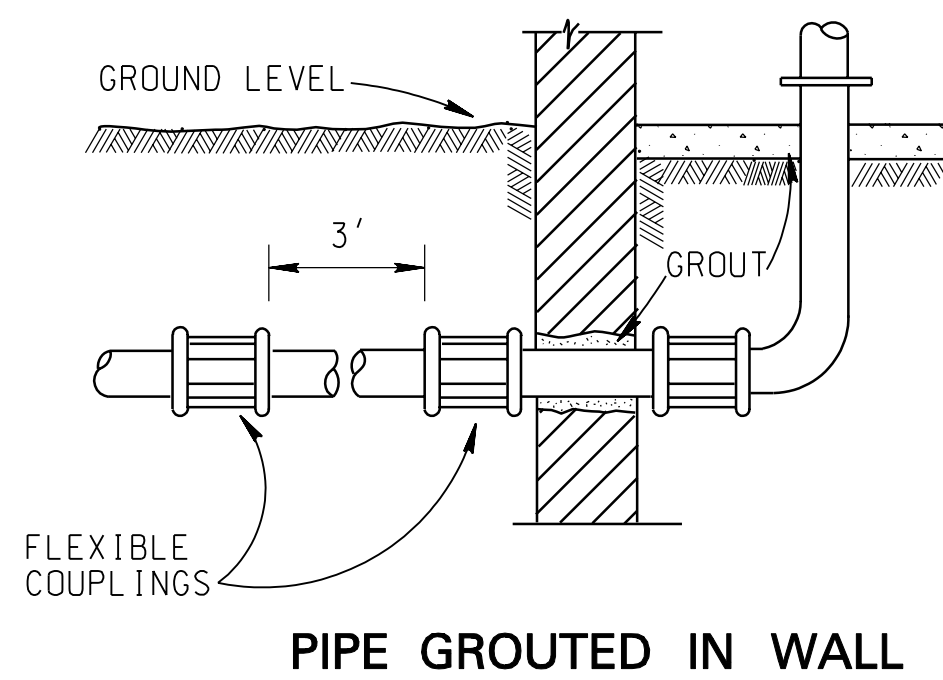
TYP. BRACING FOR RACKED PIPE SUPPORT  
NO SCALE

B



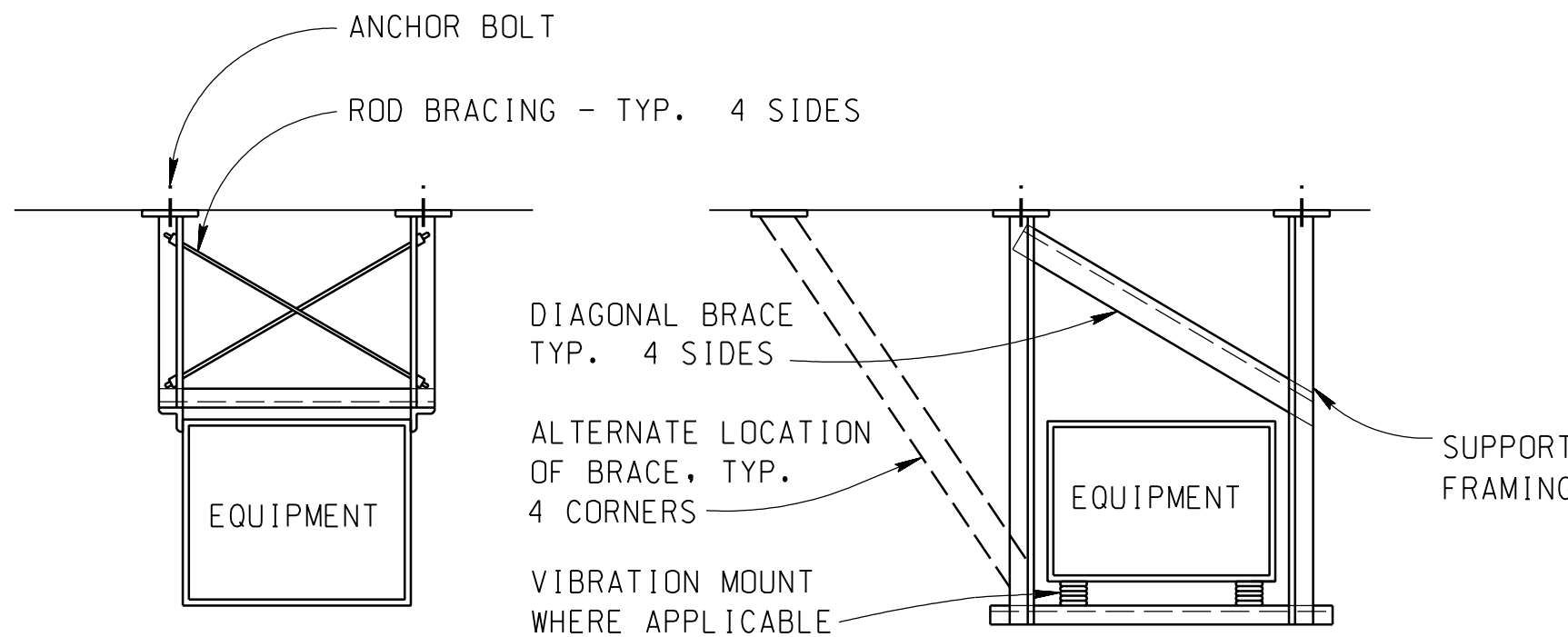
TYP. BRACING FOR TRAPEZE PIPE SUPPORT  
NO SCALE

A



PIPE GROUTED IN WALL

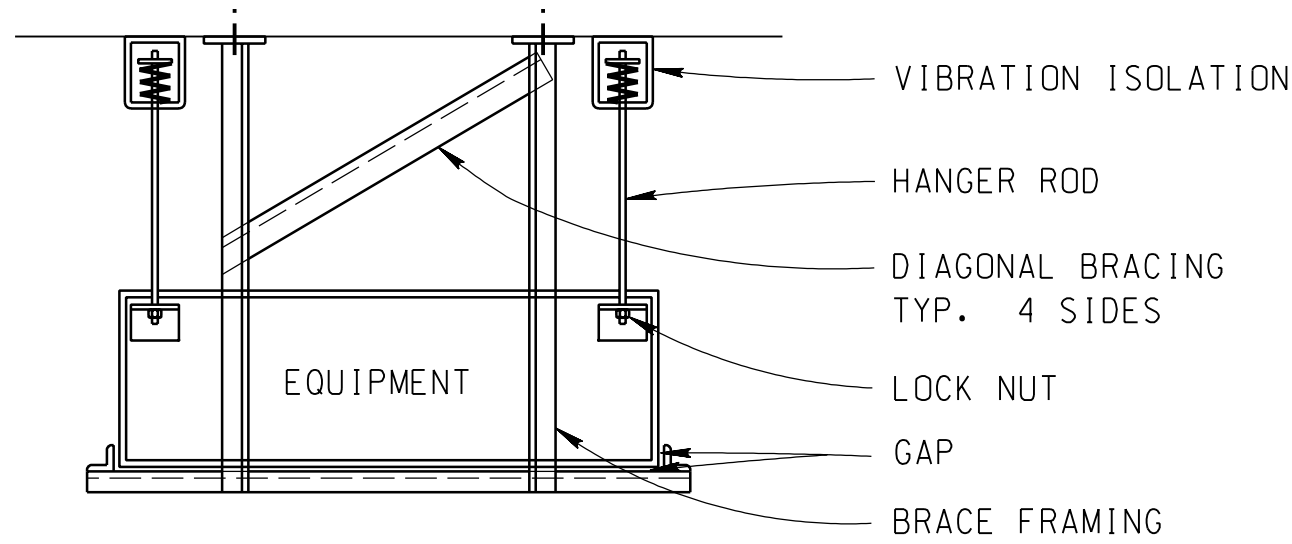
ACCEPTABLE SEISMIC DETAILS FOR PIPING ENTERING BUILDING EXCEPT  
FOR FIRE PROTECTION PIPING  
NO SCALE



SUSPENDED EQUIPMENT

DETAIL A

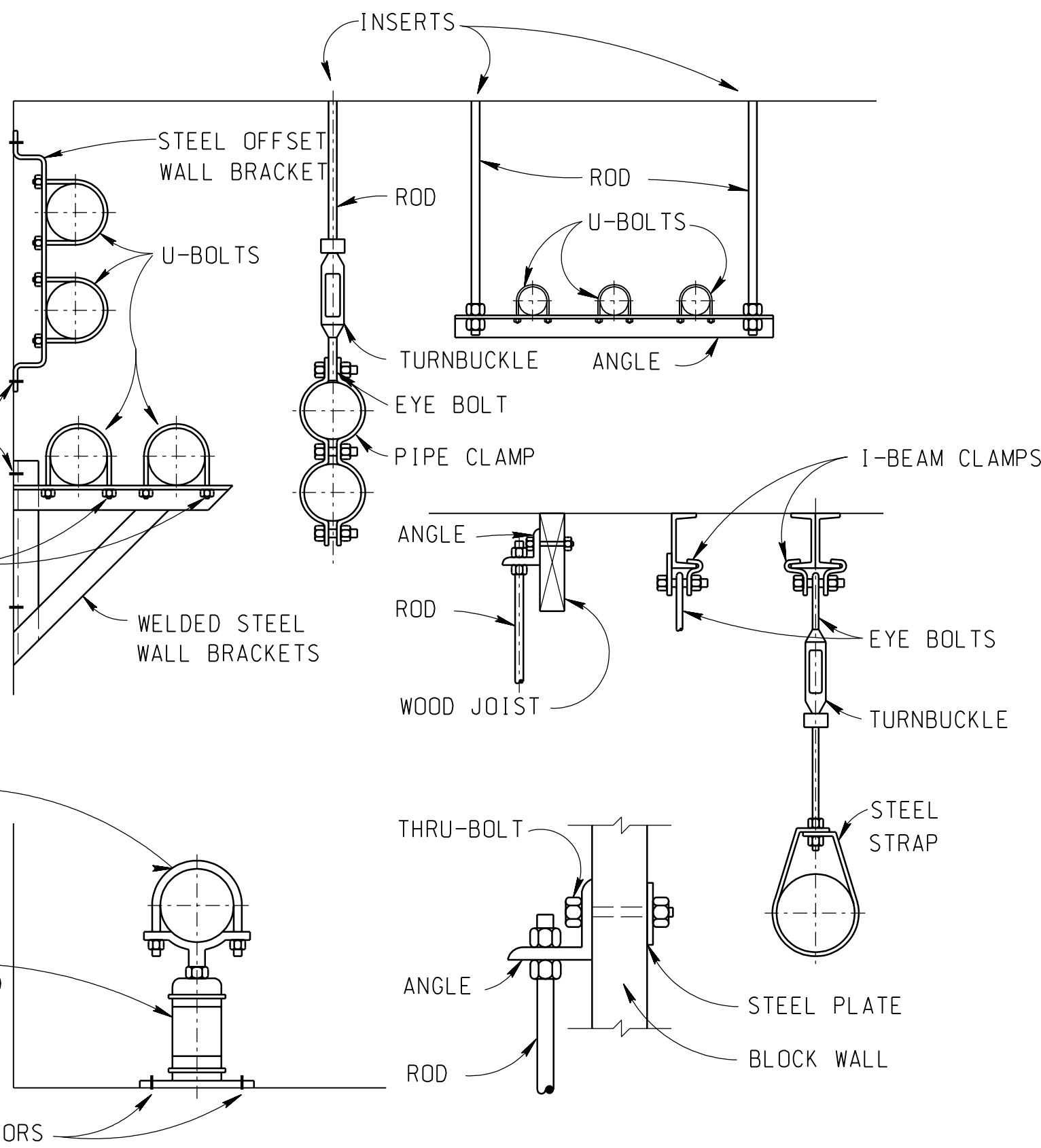
DETAIL B



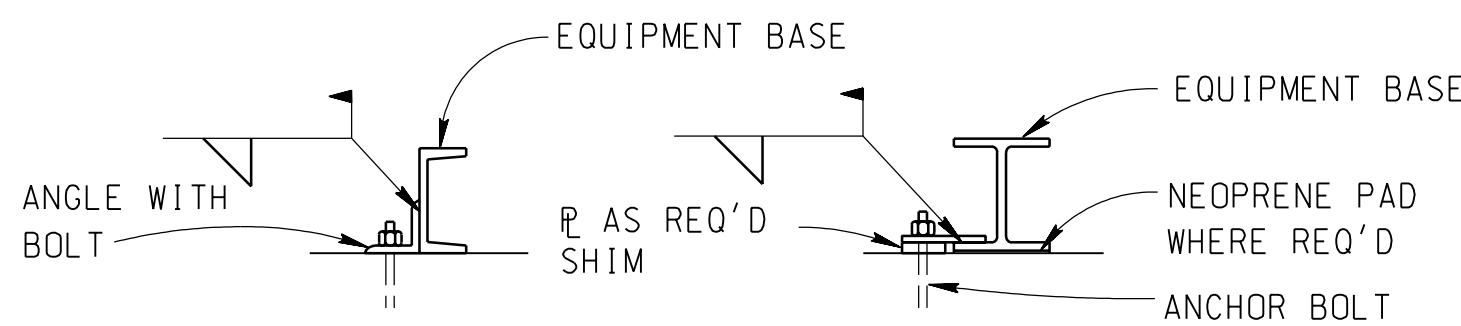
SUSPENDED EQUIPMENT WITH VIBRATION MOUNT

DETAIL C

TYP. SEISMIC RESTRAINT OF MECH. EQUIPMENT  
NO SCALE

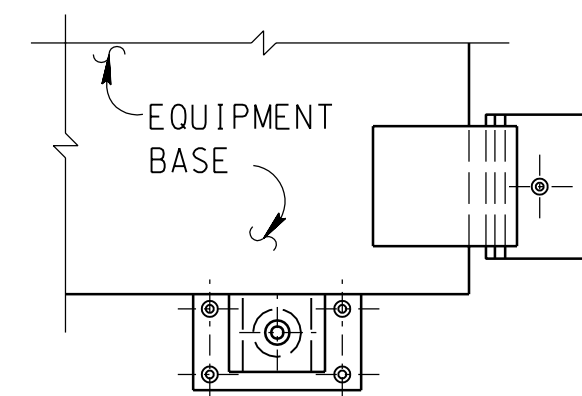


TYPICAL PIPE SUPPORTS  
NO SCALE



DETAIL A

DETAIL B



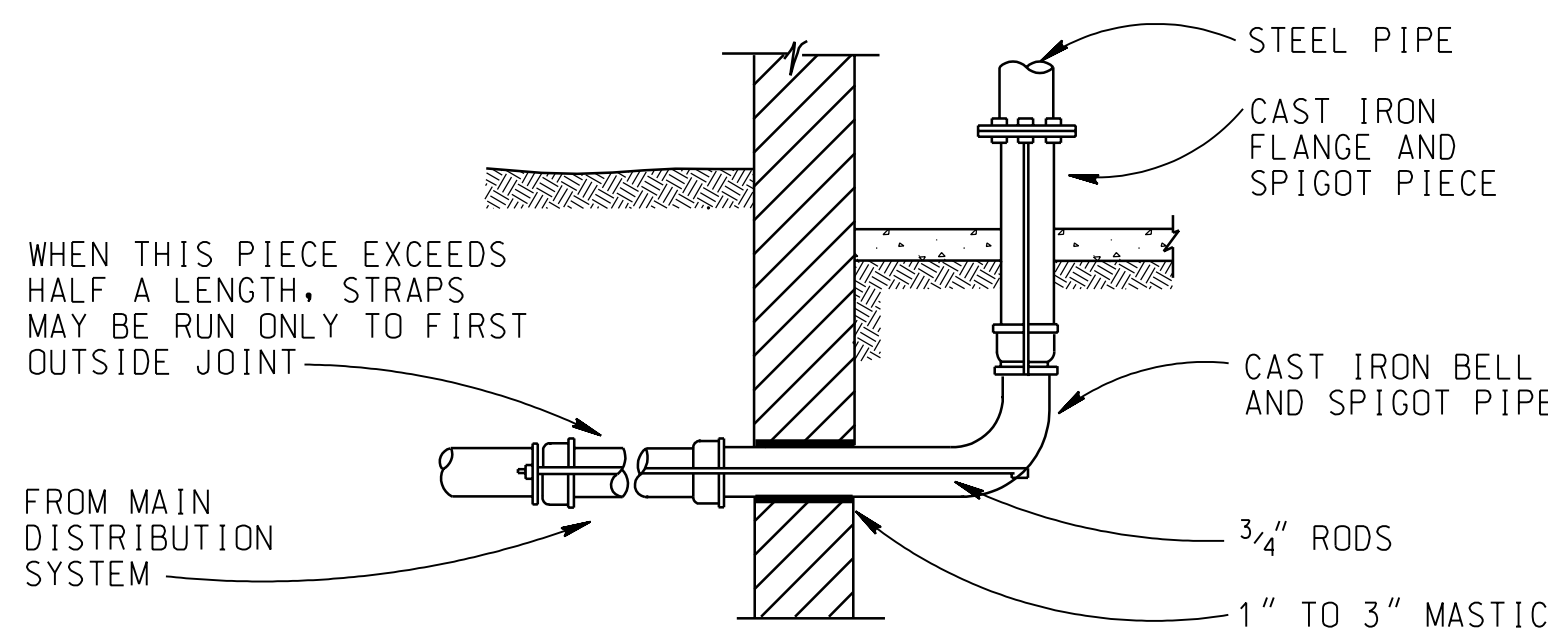
PLAN

RESTRAINTS FOR LATERAL & VERTICAL LOADS

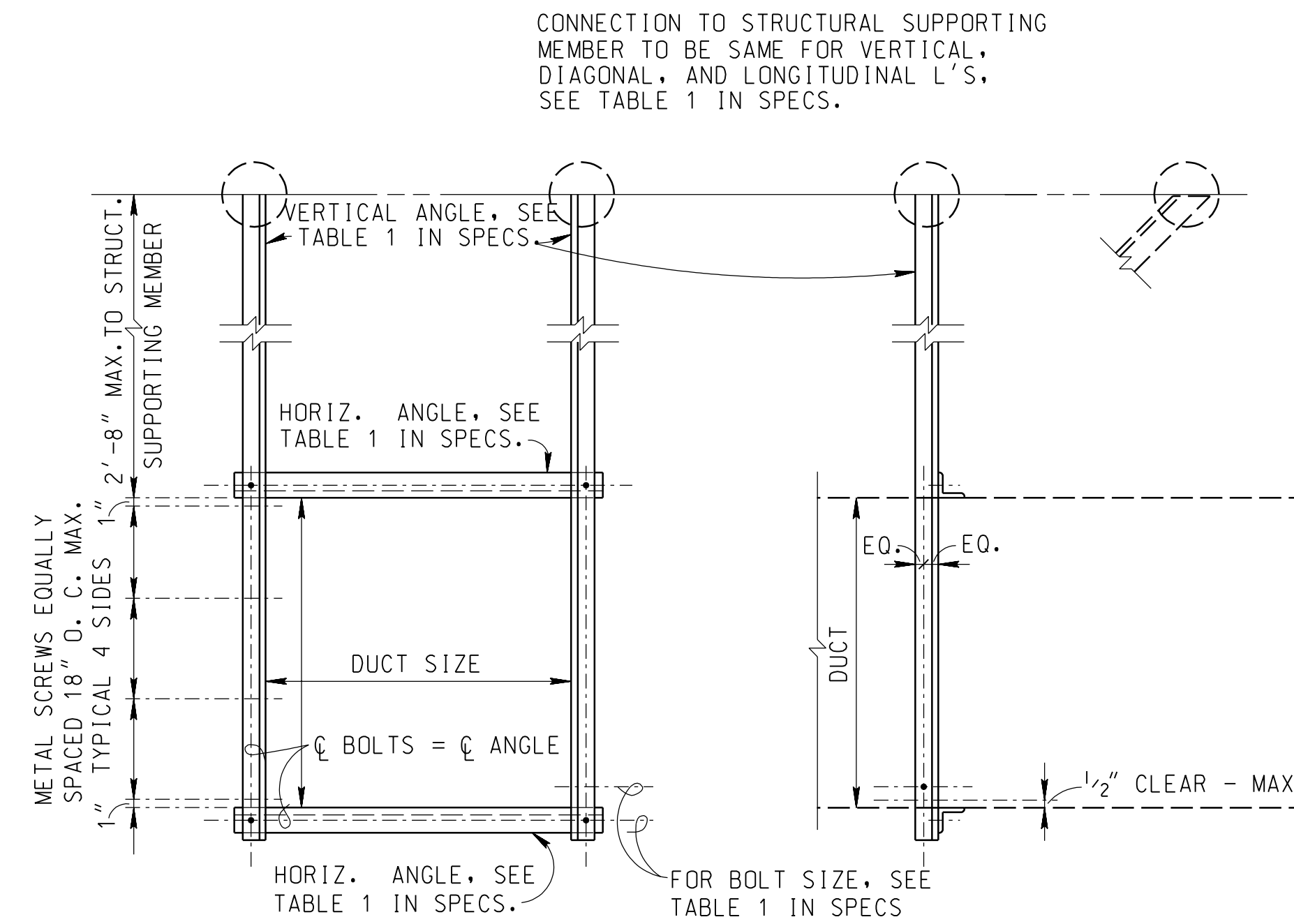
DETAIL C

DETAIL D

TYPICAL SEISMIC RESTRAINT OF MECHANICAL EQUIPMENT  
NO SCALE



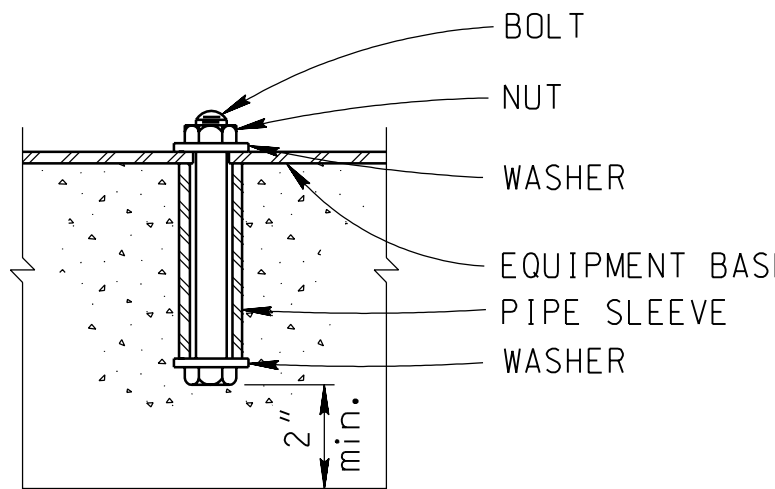
UNGROUTED PIPE



NOTES :

1. FOR SPACING OF BRACING REFER TO SPECIFICATIONS.
2. WHEN A COMBINATION OF DUCTS ARE USED IN LIEU OF ONE DUCT AT LEAST 2 SIDES OF EACH DUCT MUST BE CONNECTED TO VERTICAL OR HORIZONTAL L'S. (ADD HORIZ. L'S IF REQUIRED)

TYP. SEISMIC SIDE BRACING FOR RECTANGULAR DUCTS  
NO SCALE



HOLD DOWN BOLT  
NO SCALE

BOLT SIZE	PIPE SIZE SCH 40		AM. STD. FLAT WASHER	
	I. D.	MIN. LENGTH	O.D.	GAGE
3/8	1/2	4	1 3/8	12
1/2	3/4	6	1 3/8	12
5/8	3/4	6	1 3/4	10
3/4	1	6	2	9
7/8	1	6	2	8
1"	1 1/4	8	2 1/4	8

EXAMPLE  
FINAL DESIGN

\$\$ - THINK VALUE ENGINEERING - \$\$			
Revisions			
Symbol	Descriptions	Date	Approved
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS OMAHA, NEBRASKA			
Designed by:	G.D.R.	SITE NAME	SITE LOCATION
Drawn by:	S.L.M.	OMAHA DISTRICT DESIGN GUIDE	
Checked by:	R.R.T.	MECHANICAL DETAILS	
Reviewed by:	K.A.H.	Plot Scale Ratio: 1:12 Design File: STD07: oddgm405.dgn	Date: JUNE 2002 Sheet reference number:
Submitted by:		Spec. No.: DACA 45 Contract No.: DACA 45	Drawing Code: X
Chief: MECH. FAC.	Section		M4.5

